

LUC-569/Ahmed 12-12-11-9-26

CLAIM AMENDMENTS

1 1. – 11. (Canceled)

1 12. (Currently amended) A method for use in a node of a network comprising
2 the steps of:

3 storing location information of other nodes of the network, wherein said location
4 information comprises a global position represented by at least two coordinates,
5 exchanging the stored location information with adjacent nodes of the network,
6 and

7 wherein said node stores a local topology having at least one other node with a
8 continually changing position, said local topology having the location information of said
9 at least one other node and connections between said node and said at least one other
10 node, and said node stores said location information of other nodes ~~within and~~ outside
11 of said local topology.

1 13. (Previously presented) The method of claim 12, wherein said node uses a
2 geometry-based routing protocol to transmit said location information to nodes outside
3 of said local topology.

1 14. (Previously presented) The method of claim 13, wherein said node
2 determines a distance from a destination node outside of said local topology to nodes in
3 said local topology using said geometry-based routing protocol and said location
4 information to identify the closest node in said local topology for routing to said
5 destination node.

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1 15. (Previously presented) The method of claim 12, wherein said node
2 determines said coordinates from information received from a global positioning system.

1 16. (Canceled)

1 17. (Previously presented) The method of claim 12, said local topology of said
2 node being nodes located within a predetermined number of hops from said node.

1 18. (Previously presented) The method of claim 17, wherein said local topology
2 of said node comprises a first set of nodes having a point-to-point link to said node and
3 a second set of nodes having a point-to-point link to a node in said first set of nodes.

1 19. (Canceled)

1 20. (Currently amended) A method of creating a local topology of a node in a
2 network, said local topology being stored by said node and having i) a list of direct
3 neighbors of said node, ii) a location of said direct neighbors, and iii) connections
4 between said node and said direct neighbors, comprising the steps of:

5 identifying said direct neighbors of said node, said direct neighbors being a
6 subset of nodes within hearing distance of said node;

7 constructing point-to-point links from said node to at least some of said direct
8 neighbors;

9 transmitting information about [[a]] said location of said direct neighbors to other
10 nodes of the network, wherein said location information includes a global position
11 represented by at least two coordinates.

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1 21. (Currently amended) The method of claim 20, wherein the step of identifying
2 said direct neighbors further comprises the step of collecting global position information
3 of nodes.

1 22. (Previously presented) The method of claim 21, wherein the step of collecting
2 global position information further comprises the step of selecting nodes for said point-
3 to-point links as a function of said global position information.

1 23. (Previously presented) The method of claim 20, wherein said information
2 about said location of said direct neighbors further includes associated time-stamp
3 information indicating an age of the location information of at least some of the nodes of
4 the network.

1 24. (Previously presented) The method of claim 20, wherein said transmitting
2 step is repeated periodically.

1 25. (Currently amended) A method of updating a local topology of a node in a
2 network, said local topology being stored by said node and having i) a list of direct
3 neighbors of said node, ii) a location of said direct neighbors, and iii) connections
4 between said node and said direct neighbors, comprising the steps of:

5 identifying said direct neighbors of said node, said direct neighbors being a
6 subset of nodes within hearing distance of said node;

7 constructing point-to-point links from said node to at least some of said direct
8 neighbors;

9 transmitting, at different times, information about [[a]] said location of said direct

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10 neighbors to other nodes of the network, wherein said location information includes a
11 global position represented by at least two coordinates.

1 26. (Currently amended) The method of claim 25, wherein the step of identifying
2 said direct neighbors further comprises the step of collecting global position information
3 of nodes.

1 27. (Previously presented) The method of claim 26, wherein the step of collecting
2 global position information further comprises the step of selecting nodes for said point-
3 to-point links as a function of said global positioning information.

1 28. (Previously presented) The method of claim 25, wherein said information
2 about said location of said direct neighbors further includes associated time-stamp
3 information indicating an age of the location information of at least some of the nodes of
4 the network.